

## **II. Amendments to the Claims**

This listing of claims shall replace all prior versions, and listings, of claims in the application.

### **Listing of Claims**

1. (Currently Amended): An isolated DNA molecule comprising a DNA sequence encoding a polypeptide with an amino acid sequence selected from the group consisting of the amino acid sequences of the polypeptides MTSP15 (SEQ. ID NO. 15), MTSP21 (SEQ. ID NO. 21), MTSP25 (SEQ. ID NO. 25), MTSP36 (SEQ. ID NO. 36), MTSP43 (SEQ. ID NO. 43), and MTSP47 (SEQ. ID NO. 47).
2. (Previously Presented): An isolated portion of the DNA molecule of claim 1, said portion encoding a segment of said polypeptide shorter than the full-length polypeptide, wherein said segment retains specific antigenic properties.
3. (Original): A vector comprising:
  - (a) the DNA molecule of claim 1; and
  - (b) transcriptional and translational regulatory sequences operationally linked to said DNA sequence, said regulatory sequences allowing for expression of the polypeptide encoded by said DNA sequence in a cell.
4. (Original): A vector comprising:
  - (a) the DNA molecule of claim 2; and
  - (b) transcriptional and translational regulatory sequences operationally linked to said DNA sequence, said regulatory sequences allowing for expression of the polypeptide encoded by said DNA sequence in a cell.
5. (Original): A cell transformed with the vector of claim 3.
6. (Original): A cell transformed with the vector of claim 4.

7. (Original): A composition comprising the vector of claim 3 and a pharmaceutically acceptable diluent or filler.

8. (Original): A composition comprising the vector of claim 4 and a pharmaceutically acceptable diluent or filler.

9-10. (Canceled)

11. (Currently Amended): An isolated polypeptide with an amino acid sequence selected from the group consisting of the sequences of the polypeptides MTSP15 (SEQ. ID NO. 15), MTSP21 (SEQ. ID NO. 21), MTSP25 (SEQ. ID NO. 25), MTSP36 (SEQ. ID NO. 36), MTSP43 (SEQ. ID NO. 43), and MTSP47 (SEQ. ID NO. 47).

12. (Previously Presented): An isolated segment of the polypeptide of claim 11, said segment being shorter than the full-length polypeptide and wherein said segment retains specific antigenic properties.

13. (Previously Presented): A composition comprising the polypeptide of claim 11 and a pharmaceutically acceptable diluent or filler.

14. (Previously Presented): A composition comprising the polypeptide of claim 12 and a pharmaceutically acceptable diluent or filler.

15. (Previously Presented): A composition comprising at least two polypeptides of the *Mycobacterium tuberculosis* complex, or segments thereof, wherein at least one of said at least two polypeptides is the polypeptide of claim 11, wherein the segments retain specific antigenic properties.

16. (Currently Amended): A composition comprising at least two polypeptides of the *Mycobacterium tuberculosis* complex, or segments thereof, wherein at least one of said at

least two segments is the segment of claim 12, wherein the segments retain specific antigenic properties.

17. (Currently Amended): A method of diagnosis comprising:

(a) administration of a polypeptide to a subject suspected of having *Mycobacterium tuberculosis* infection, the polypeptide being selected from the group consisting of MTSP1 (SEQ. ID NO. 1), MTSP21 (SEQ. ID NO. 21), MTSP23 SEQ. ID NO. 23), MTSP36 (SEQ. ID NO. 36), and MTSP43 SEQ. ID NO. 43); and

(b) examining said subject for an immune response to said polypeptide, wherein the presence of an immune response to said polypeptide is an indication that said subject has a *Mycobacterium tuberculosis* infection.

18. (Currently Amended) A method of diagnosis comprising:

(a) administration of a polypeptide segment to a subject suspected of having *Mycobacterium tuberculosis* infection, the segment being a segment of polypeptide selected from the group consisting of MTSP1 (SEQ. ID NO. 1), MTSP21 (SEQ. ID NO. 21), MTSP23 SEQ. ID NO. 23), MTSP36 (SEQ. ID NO. 36), and MTSP43 SEQ. ID NO. 43), wherein the segment retains specific antigenic properties; and

(b) examining said subject for an immune response to said polypeptide segment, wherein the presence of an immune response to said polypeptide segment is an indication that said subject has a *Mycobacterium tuberculosis* infection.

19. (Currently Amended) A method of diagnosis comprising:

(a) administration of a composition to a subject suspected of having *Mycobacterium tuberculosis* infection, the composition comprising at least two polypeptides of the *Mycobacterium tuberculosis* complex, or segments thereof, wherein at least one of said at least two polypeptides is a polypeptide selected from the group consisting of MTSP1 (SEQ. ID NO. 1), MTSP21 (SEQ. ID NO. 21), MTSP23 SEQ. ID NO. 23), MTSP36 (SEQ. ID NO. 36), and MTSP43 SEQ. ID NO. 43), wherein the segments retain specific antigenic properties; and

(b) examining said subject for an immune response to said composition, wherein the presence of an immune response to said composition is an indication that said subject has a *Mycobacterium tuberculosis* infection.

20. (Currently Amended) A method of diagnosis comprising:

(a) administration of a composition to a subject suspected of having *Mycobacterium tuberculosis* infection, the composition comprising at least two polypeptides of the *Mycobacterium tuberculosis* complex, or segments thereof, wherein at least one of said at least two segments is a segment of a polypeptide selected from the group consisting of MTSP1 (SEQ. ID NO. 1), MTSP21 (SEQ. ID NO. 21), MTSP23 (SEQ. ID NO. 23), MTSP36 (SEQ. ID NO. 36), and MTSP43 (SEQ. ID NO. 43), wherein the segments retain specific antigenic properties; and

(b) examining said subject for an immune response to said composition, wherein the presence of an immune response to said composition is an indication that said subject has a *Mycobacterium tuberculosis* infection.

21-36. (Canceled)